

WHAT IS CLAIMED IS:

1. A compressor blade;

an airfoil having a leading edge, a base attachment and a platform between the airfoil and the base attachment, the base attachment having side faces between end faces, said end faces facing in opposite generally axial directions of said blade attachment;

said platform having flanges projecting from opposite sides of the blade and cantilevered over at least portions of said side faces;

said airfoil being carried by said platform with said leading edge overlying a portion of said cantilevered flange along one side of said blade.

2. A compressor blade according to claim 1 wherein each of said side faces has discrete angled and linear walls extending in a generally axial direction.

3. A compressor blade according to claim 1 in combination with a compressor wheel including a generally axially extending groove having a cross sectional configuration corresponding generally to the cross sectional configuration of said base attachment for receiving and retaining the blade on the wheel, said groove having generally axially extending recesses along opposite sides of the groove for receiving the flanges of said blade.

4. A compressor blade according to claim 3 wherein said wheel has an outer rim with said recesses being inset from said outer rim, outer surfaces of said flanges lying substantially flush with the outer wheel rim.

5. A compressor blade according to claim 1 wherein said leading edge overlies the flange portion on a pressure side of the airfoil.

6. A method of replacing a first compressor blade on a compressor wheel having a groove opening through a rim of the wheel with a second blade, wherein the first compressor blade has a first blade angle, comprising the steps of:

removing said first blade from said compressor wheel;

forming a pair of recesses along a rim of the wheel and along respective opposite sides of the groove;

providing said second compressor blade with a second blade angle different than the blade angle of said first blade, a platform having a pair of flanges extending along opposite sides of said second blade and an airfoil having a leading edge thereof overlying one of said flanges; and

mounting the second blade on the compressor wheel with a base attachment of said second blade in said groove and said flanges in said recesses.

7. A method according to claim 6 including forming the recesses to straddle the groove and with the recesses opening into the groove.

8. A method according to claim 6 including mounting the second blade in the groove with a radially outer surface of said platform lying flush with outer surfaces of the wheel rim.

9. A method according to claim 6 including mounting the second blade in the groove with a radially outer surface of said platform forming part of a gas path through the compressor.

10. A method according to claim 9 including forming the recesses to straddle the groove and with the recesses opening into the groove.

11. A method of replacing a first compressor blade on a compressor wheel having a groove opening through a rim of the wheel with a second blade, comprising the steps of:

removing said first blade from said compressor wheel;

forming a pair of recesses along a rim of the wheel and along respective opposite sides of the groove;

providing said second compressor blade with a base attachment, a platform having a pair of flanges cantilevered along opposite sides of said second blade over said base attachment and an airfoil having a leading

edge thereof overlying one of said cantilevered flanges;  
and

mounting the second blade on the compressor wheel with the base attachment of said second blade in said groove and said flanges in said recesses.

12. A method according to claim 11 including forming the recesses to straddle the groove and with the recesses opening into the groove.

13. A method according to claim 11 including mounting the second blade in the groove with a radially outer surface of said platform lying flush with outer surfaces of the wheel rim.

14. A method according to claim 11 including mounting the second blade in the groove with a radially outer surface of said platform forming part of a gas path through the compressor.

15. A method according to claim 14 including forming the recesses to straddle the groove and with the recesses opening into the groove.